Economics (ECONOM)

ECONOM 1000: General Economics for Journalists
One semester course covering similar material as ECONOM 1014 and ECONOM 1015, but for Journalism majors. Topics include opportunity costs, gains from trade, efficiency and markets, non-competitive markets, game theory, government spending and taxation, economic growth, monetary and fiscal policy, unemployment and inflation, exchange rates. Includes applications for Journalism students. Not open to students who have completed ECONOM 1014, ECONOM 1024, or ECONOM 1051. Graded on A-F basis only.

Credit Hours: 5
Prerequisites: Open to majors and pre-majors in Journalism; also open to majors outside of Arts and Sciences and Business

ECONOM 1014: Principles of Microeconomics
A broad survey of microeconomics, from the basic market model and its many applications to market failures and policy responses. Topics include potential trade offs between efficiency and equity in competition and trade policy; determinants of wage differentials, poverty and inequality; and evaluation of the benefits and costs of government interventions in markets. Not open to students who have completed ECONOM 1000, ECONOM 1024 or ECONOM 1051.

Credit Hours: 3

ECONOM 1014H: Principles of Microeconomics - Honors
A broad introduction to microeconomics that is similar in coverage to ECONOM 1014, but with a more rigorous approach. Not open to students who have completed ECONOM 1000, ECONOM 1024, or ECONOM 1051. Math Reasoning Proficiency Course. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: Honors eligibility required and a grade of ‘C’ or higher in MATH 1050 or MATH 1100

ECONOM 1015: Principles of Macroeconomics
An introduction to the study of how macroeconomic forces and public policy affect the welfare of a nation. Topics include understanding the business cycle, economic growth, inflation, interest rates, and unemployment, as well as the effects of fiscal and monetary policy. Not open to students who have completed ECONOM 1000 or ECONOM 1051. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: ECONOM 1014 or ABM 1041

ECONOM 1015H: Principles of Macroeconomics - Honors
A broad introduction to macroeconomics that is similar in coverage to ECONOM 1015, but with a more rigorous approach. Not open to students who have completed ECONOM 1000 or ECONOM 1051. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: ECONOM 1014, ECONOM 1024, or ABM 1041 or equivalent; Honors eligibility required

ECONOM 1051H: General Economics - Honors
One semester course covering similar material as covered in ECONOM 1014 and ECONOM 1015. Topics include opportunity costs, gains from trade, efficiency and markets, non-competitive markets, game theory, government spending and taxation, economic growth, monetary and fiscal policy, unemployment and inflation, exchange rates. Not open to students who have completed ECONOM 1014 or ECONOM 1024 and ECONOM 1015. Math Reasoning Proficiency Course.

Credit Hours: 5
Prerequisites: Honors eligibility required and a grade of 'C' or higher in MATH 1050 or MATH 1100

ECONOM 2004: Undergraduate Topics in Economics - Social Science
Organized study of selected topics in Economics; applied or theoretical economics; covers subjects not included in regularly offered courses.

Credit Hour: 1-3
Prerequisites: instructor's consent

ECONOM 2004H: Undergraduate Topics in Economics - Social Science - Honors
Organized study of selected topics in Economics; applied or theoretical economics; covers subjects not included in regularly offered courses.

Credit Hour: 1-3
Prerequisites: instructor's consent; honors eligibility required

ECONOM 2004W: Undergraduate Topics in Economics - Social Science - Writing Intensive
Organized study of selected topics in Economics; applied or theoretical economics; covers subjects not included in regularly offered courses.

Credit Hour: 1-3
Prerequisites: instructor's consent

ECONOM 3224: Introduction to International Economics
A topical course which emphasizes the application of basic economic analysis to real and current international economic issues. Topics include free trade, protectionism, free trade areas, multilateral trade negotiations, trade and development, exchange rates, the International Monetary System, and economic integration.

Credit Hours: 3
Prerequisites: ECONOM 1000, ECONOM 1014, ECONOM 1024 or ECONOM 1051

ECONOM 3229: Money, Banking and Financial Markets
Operation of the U.S. financial and economic system. Covers interest rates, banking regulation, the money supply process and the conduct of the Federal Reserve, inflation and the macroeconomy, exchange rates and the international financial system, rational expectations, and efficient markets.

Credit Hours: 3
Prerequisites: (ECONOM 1014 or ABM 1041) and (ECONOM 1015 or ABM 1042); or ECONOM 1000 or ECONOM 1051
ECONOM 3229H: Money, Banking and Financial Markets - Honors
Operation of the U.S. financial and economic system. Covers interest rates, banking regulation, the money supply process and the conduct of the Federal Reserve, inflation and the macroeconomy, exchange rates and the international financial system, rational expectations, and efficient markets.
Credit Hours: 3
Prerequisites: ECONOM 1014 and ECONOM 1015; or ECONOM 1000; or ECONOM 1051; or ABM 1041 and ABM 1042. Honors eligibility required

ECONOM 3251: Managerial Economics
Theory of rational behavior in consumption, production, and pricing decisions of households and firms. Topics include the economics of the firm in the context of partial equilibria in product and factor markets under competition, monopoly, oligopoly and monopolistic competition as well as game theory. No credit for students who have completed ECONOM 4351.
Credit Hours: 3
Prerequisites: MATH 1400 or MATH 1500 or equivalent and (ECONOM 1000 or ECONOM 1014 or ABM 1041)

ECONOM 3271: Introduction to Applied Econometric Practice
Introduction to the use of regression analysis of economic data, including simple and multiple regression, dummy variables. Econometric problems considered include heteroscedasticity, autocorrelation, multicollinearity and simultaneous equation issues.
Credit Hours: 3
Prerequisites: ECONOM 1014 or ECONOM 1024 and ECONOM 1015, or ECONOM 1051H and STAT 2500

ECONOM 3323: Capitalism, Democracy and Society
This is a one-credit seminar course for students interested in careers involving social science research and analysis; topics covered will be a selection of classic and contemporary debates in the social sciences.
Credit Hour: 1
Prerequisites: ECONOM 1014 and ECONOM 1015, or ECONOM 1051

ECONOM 3367: Law and Economics
This course is a survey of economic analyses of American legal institutions. Students will apply basic microeconomics, game theoretic and statistical concepts to the study of property, contracts, torts, the legal process, crime, and the judiciary.
Credit Hours: 3
Prerequisites: (ECONOM 1014 or ECONOM 1024 or ABM 1041) and (STAT 1200 or STAT 2500) or equivalent

ECONOM 3367W: Law and Economics - Writing Intensive
This course is a survey of economic analyses of American legal institutions. Students will apply basic microeconomics, game theoretic and statistical concepts to the study of property, contracts, torts, the legal process, crime, and the judiciary.
Credit Hours: 3
Prerequisites: (ECONOM 1014 or ECONOM 1024 or ABM 1041) and (STAT 1200 or STAT 2500) or equivalent

ECONOM 3940: Internship
Internship experience for students interested in economics. Supervised internship work with approval of Director of Undergraduate Studies and academic adviser. Graded on S/U basis only.
Credit Hour: 1-3
Prerequisites: ECONOM 1014 or ECONOM 1000 or ECONOM 1051

ECONOM 3950: Practicum in Economics
Practical experience in consulting, teaching or research guided by faculty advisor. Graded on S/U basis only.
Credit Hour: 1-3
Prerequisites: consent of Director of Undergraduate Studies and faculty advisor
Recommended: Grade of B or higher in ECONOM 4351 and ECONOM 4371

ECONOM 4004: Topics in Economics- Social Science
Study in applied or theoretical economics; covers subjects not included in regularly offered courses.
Credit Hour: 1-3
Prerequisites: instructor's consent

ECONOM 4004W: Topics in Economics- Social Science - Writing Intensive
Study in applied or theoretical economics; covers subjects not included in regularly offered courses.
Credit Hour: 1-3
Prerequisites: instructor's consent

ECONOM 4311: Labor Economics
Surveys theoretical explanations of wage and employment determination in contemporary labor markets.
Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4311W: Labor Economics - Writing Intensive
Surveys theoretical explanations of wage and employment determination in contemporary labor markets.
Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4315: Public Economics
Analyzes economic effects of government expenditures, taxes and debt. Expenditure and taxation principles, tax reform, cost-benefit analysis, fiscal policy.
Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4315W: Public Economics - Writing Intensive
Analyzes economic effects of government expenditures, taxes and debt. Expenditure and taxation principles, tax reform, cost-benefit analysis, fiscal policy.
Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351
ECONOM 4317: Urban Economics
(cross-leveled with ECONOM 7317). This is a class in urban economics. Topics covered include: formation of cities, land markets, housing markets, economics of transportation and commuting, cities as engines of growth and issues affecting cities such as crime, poverty and migration. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4317W: Urban Economics - Writing Intensive
(cross-leveled with ECONOM 7317). This is a class in urban economics. Topics covered include: formation of cities, land markets, housing markets, economics of transportation and commuting, cities as engines of growth and issues affecting cities such as crime, poverty and migration. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4320: History of Economic Thought
(cross-leveled with ECONOM 7320). Origins of modern economic thought in the context of social and intellectual environment of the time in which they originated, their contribution to their period and to modern thought.

Credit Hours: 3
Prerequisites: ECONOM 1014 and ECONOM 1015; or ECONOM 1000 or ECONOM 1051

ECONOM 4320W: History of Economic Thought
Origins of modern economic thought in the context of social and intellectual environment of the time in which they originated, their contribution to their period and to modern thought.

Credit Hours: 3
Prerequisites: (ECONOM 1014 or ECONOM 1024) and ECONOM 1015, or ECONOM 1051

ECONOM 4326: Economics of International Trade
(cross-leveled with ECONOM 7326). The microeconomic theory of international trade. Topics include comparative advantage, the theory of commercial policy, economic integration, trade with less developed countries and the trade effects of economic growth.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4326W: Economics of International Trade - Writing Intensive
(cross-leveled with ECONOM 7326). The microeconomic theory of international trade. Topics include comparative advantage, the theory of commercial policy, economic integration, trade with less developed countries and the trade effects of economic growth.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4329: The Banking System and the Money Market
(cross-leveled with ECONOM 7329). Organization of the money market; credit control procedures and aims, effect of bank expansion and contraction on money market and national income deregulation.

Credit Hours: 3
Prerequisites: ECONOM 1015 or ABM 1042 or ECONOM 1000 or ECONOM 1051

ECONOM 4329W: The Banking System and the Money Market - Writing Intensive
Organization of the money market; credit control procedures and aims, effect of bank expansion and contraction on money market and national income deregulation.

Credit Hours: 3
Prerequisites: ECONOM 1015 or ABM 1042 or ECONOM 1000 or ECONOM 1051

ECONOM 4340: Introduction to Game Theory
(cross-leveled with ECONOM 7340). An introduction to the theory of games, viewed as a set of tools used widely in economics to study situations in which decision-makers (consumers, firms, governments, etc.) interact. The course introduces the basic theory, emphasizing the concepts and their economic applications.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4345: Economics of Education
(cross-leveled with ECONOM 7345). Economic theory is used to analyze the market for educational services and education policy. Topics include: human capital theory, cost and performance measures for public and private schools, market based approaches to school reform, school finance, higher education cost and access.

Credit Hours: 3
Prerequisites: (ECONOM 1014 or ECONOM 1024 or ABM 1041 or ECONOM 1000 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 4345W: Economics of Education - Writing Intensive
Economic theory is used to analyze the market for educational services and education policy. Topics include: human capital theory, cost and performance measures for public and private schools, market based approaches to school reform, school finance, higher education cost and access.

Credit Hours: 3
Prerequisites: (ECONOM 1014 or ECONOM 1024 or ABM 1041 or ECONOM 1000 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 4351: Intermediate Microeconomics
(cross-leveled with ECONOM 7351). Theory of rational behavior in consumption, production, and pricing decisions of households and firms. Partial equilibria in product and factor markets under competition, monopoly, oligopoly and monopolistic competition. A brief introduction to general equilibrium and welfare economics is provided. Calculus is employed. No credit for students who have completed ECONOM 3251.

Credit Hours: 3
Prerequisites: (ECONOM 1014 or ABM 1041 or ECONOM 1000 or ECONOM 1051) and (MATH 1400 or MATH 1500) or equivalent
ECONOM 4351H: Intermediate Microeconomics - Honors
Theory of rational behavior in consumption, production, and pricing decisions of households and firms. Partial equilibria in product and factor markets under competition, monopoly, oligopoly and monopolistic competition. A brief introduction to general equilibrium and welfare economics is provided. Calculus is employed. No credit for students who have completed ECONOM 3251.

Credit Hours: 3
Prerequisites: (ECONOM 1014 or ECONOM 1024 or ABM 1041) and MATH 1400 or equivalent. Honors eligibility required

ECONOM 4353: Intermediate Macroeconomics
(cross-leveled with ECONOM 7353). The study of the structure and performance of national economics. Topics include: long-term economic growth, aggregate economic fluctuations, unemployment, and inflation; consequences for national economies of being part of the global economic system; government policies and macroeconomic performance.

Credit Hours: 3
Prerequisites: (ECONOM 1000 or ECONOM 1015 or ABM 1042) and (MATH 1400 or MATH 1500) or equivalent

ECONOM 4355: Industrial Organization and Competitive Strategy
(cross-leveled with ECONOM 7355). Analyzes the structure of industry, its impact on the operations of the firm and significance for public policy. The focus is on strategic interaction among firms with market power. Topics include oligopoly, competition, collusion, price discrimination, product differentiation, advertising, entry and exit.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4355W: Industrial Organization and Competitive Strategy - Writing Intensive
Analyzes the structure of industry, its impact on the operations of the firm and significance for public policy. The focus is on strategic interaction among firms with market power. Topics include oligopoly, competition, collusion, price discrimination, product differentiation, advertising, entry and exit.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351

ECONOM 4357: Health Economics
(cross-leveled with ECONOM 7357, PUB_AF 7357). Analyzes the economics of health care in the United States with particular attention paid to the role of government. It examines the demand for health care and the structure and consequences of public and private health insurance; the supply of health care, including professional training, licensure, specialization and compensation, hospital competition and finance, and the determinants and consequences of technical change in medicine and health care reform.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 4357W: Health Economics - Writing Intensive
Analyzes the economics of health care in the United States with particular attention paid to the role of government. It examines the demand for health care and the structure and consequences of public and private health insurance; the supply of health care, including professional training, licensure, specialization and compensation, hospital competition and finance, and the determinants and consequences of technical change in medicine and health care reform.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 4370: Quantitative Economics
(cross-leveled with ECONOM 7370). The aim of this course is to provide an introduction to the mathematical language of economic theory. Topics include linear models, matrix algebra, rules of differentiation and comparative static analysis, optimization.

Credit Hours: 3
Prerequisites: MATH 1300 and MATH 1400 or MATH 1500 or equivalent

ECONOM 4371: Introductory Econometrics
(cross-leveled with ECONOM 7371). Study methods for quantitative analysis of economic data. Estimation techniques, tests of significance, prediction and forecasting reviewed with respect to problems presented by economic data and information demands of economic decision models.

Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 4385: Problems in Economics
Directed readings in advanced economics. Students develop and complete a directed readings program on a focused economics topic that covers content appropriate for an advanced undergraduate economics course under the guidance of a faculty mentor. Credit arranged by the instructor.

Credit Hour: 1-3
Prerequisites: ECONOM 4351, ECONOM 4371, and instructor's consent. Not open to non-majors

ECONOM 4775: Dynamic Optimization and its Applications to the Natural Sciences and Economics

Credit Hour: 1-3
Prerequisites: ECONOM 4370 or instructor's consent

ECONOM 4940: Internship in Economics
Internship experience for Economics majors. 40 hours of supervised internship work with approval of Director of Undergraduate Studies and academic advisor. Graded on S/U basis only.

Credit Hour: 1-3
Prerequisites: C or higher in ECONOM 4351 and ECONOM 4371; Declared economics majors who have a minimum overall CUM GPA of 2.75 and have junior or senior standing
Recommended: Students must have completed at least 15 credit hours at MU.

**ECONOM 4965: Independent Research in Economics**
Development of a carefully considered research project under close supervision of a faculty member. Credit arranged by instructor.

*Credit Hour*: 1-3
*Prerequisites*: instructor's consent

**ECONOM 4970: Senior Seminar in Economics**
Seminar for graduating seniors who are majoring in economics. Multiple writing assignments will emphasize synthesis of theoretical, empirical, and institutional economics. Not open to non-majors.

*Credit Hours*: 3

**ECONOM 4995: Honors Thesis**
Not open to non-majors. Capstone course required for Economics honors students.

*Credit Hours*: 3
*Prerequisites*: ECONOM 4351

**ECONOM 7001: Topics in Economics - General**
Study in applied or theoretical economics. Subjects and earnable credit may vary from semester to semester.

*Credit Hour*: 1-99
*Prerequisites*: instructor's consent

**ECONOM 7311: Labor Economics**
(cross-leveled with ECONOM 4311). Surveys theoretical explanations of wage and employment determination in contemporary labor markets.

*Credit Hours*: 3
*Prerequisites*: ECONOM 3251 or ECONOM 7351

**ECONOM 7315: Public Economics**
(cross-leveled with ECONOM 4315). Analyzes economic effects of government expenditures, taxes and debt. Expenditure and taxation principles, tax reform, cost-benefit analysis, fiscal policy.

*Credit Hours*: 3
*Prerequisites*: ECONOM 3251 or ECONOM 4351

**ECONOM 7317: Urban Economics**
(cross-leveled with ECONOM 4317). This is a class in urban economics. Topics covered include: formation of cities, land markets, housing markets, economics of transportation and commuting, cities as engines of growth and issues affecting cities such as crime, poverty and migration. Graded on A-F basis only.

*Credit Hours*: 3

**ECONOM 7320: History of Economic Thought**
(cross-leveled with ECONOM 4320). Origins of modern economic thought in the context of social and intellectual environment of the time in which they originated, their contribution to their period and to modern thought.

*Credit Hours*: 3

**ECONOM 7326: Economics of International Trade**
(cross-leveled with ECONOM 4326). The microeconomic theory of international trade. Topics include comparative advantage, the theory of commercial policy, economic integration, trade with LDC's and the trade effects of economic growth.

*Credit Hours*: 3
*Prerequisites*: ECONOM 1014 or ECONOM 1024 and ECONOM 1015 or ECONOM 1051H

**ECONOM 7329: The Banking System and the Money Market**
(cross-leveled with ECONOM 4329) Organization of the money market; credit control procedures and aims, effect of bank expansion and contraction on money market and national income deregulation.

*Credit Hours*: 3
*Prerequisites*: ECONOM 1015 or ABM 1042 or ECONOM 1000 or ECONOM 1051

**ECONOM 7340: Introduction to Game Theory**
(cross-leveled with ECONOM 4340). An introduction to the theory of games, viewed as a set of tools used widely in economics to study situations in which decision-makers (consumers, firms, governments, etc.) interact. The course introduces the basic theory, emphasizing the concepts and their economic applications.

*Credit Hours*: 3
*Prerequisites*: ECONOM 3251 or ECONOM 7351 or instructor's consent

**ECONOM 7345: Economics of Education**
(cross-leveled with ECONOM 4345). Economic theory is used to analyze the market for educational services and education policy. Topics include: human capital theory, cost and performance measures for public and private schools, market based approaches to school reform, school finance, higher education cost and access.

*Credit Hours*: 3
*Prerequisites*: (ECONOM 1014 or ECONOM 1024 or ABM 1041 or ECONOM 1000) and (STAT 2200 or STAT 2500) or equivalent

**ECONOM 7351: Intermediate Microeconomics**
(cross-leveled with ECONOM 4351). Theory of rational behavior in consumption, production, and pricing decisions of households and firms. Partial equilibria in product and factor markets under competition, monopoly, oligopoly and monopolistic competition. A brief introduction to general equilibrium and welfare economics is provided. Calculus is employed. No credit for students who have completed 3251.

*Credit Hours*: 3
*Prerequisites*: (ECONOM 1014 or ECONOM 1024 or ABM 1041 or ECONOM 1000) and (STAT 2200 or STAT 2500) or equivalent

**ECONOM 7353: Intermediate Macroeconomics**
(cross-leveled with ECONOM 4353). The study of the structure and performance of national economics. Topics include: long-term economic growth, aggregate economic fluctuations, unemployment, and inflation; consequences for national economies of being part of the global economic system; government policies and macroeconomic performance.
ECONOM 7355: Industrial Organization and Competitive Strategy
(cross-leveled with ECONOM 4355). Analyzes the structure of industry, its impact on the operations of the firm and significance for public policy. The focus is on strategic interaction among firms with market power. Topics include oligopoly, competition, collusion, price discrimination, product differentiation, advertising, entry and exit.
Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 7357: Health Economics
(same as PUB_AF 7357; cross-leveled with ECONOM 4357). Analyzes the economics of health care in the United States with particular attention paid to the role of government. It examines the demand for health care and the structure and consequences of public and private health insurance; the supply of health care, including professional training, licensure, specialization and compensation, hospital competition and finance, and the determinants and consequences of technical change in medicine; and examination of recent proposals and initiatives for health care reform.
Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 7361: Comparative Economic Systems
(cross-leveled with Econ 4361). Study of capitalism, market socialism, and central planning.
Credit Hours: 3
Prerequisites: ECONOM 3229 and ECONOM 3251 or ECONOM 4351

ECONOM 7370: Quantitative Economics
(cross-leveled with ECONOM 4370). The aim of this course is to provide an introduction to the mathematical language of economic theory. Topics include linear models, matrix algebra, rules of differentiation and comparative static analysis, optimization.
Credit Hours: 3
Prerequisites: MATH 1300 and MATH 1400 or MATH 1500 or equivalent

ECONOM 7371: Introductory Econometrics
(cross-leveled with ECONOM 4371). Study methods for quantitative analysis of economic data. Estimating techniques, tests of significance, prediction and forecasting reviewed with respect to problems presented by economic data and information demands of economic decision models.
Credit Hours: 3
Prerequisites: ECONOM 3251 or ECONOM 4351 and (STAT 2200 or STAT 2500) or equivalent

ECONOM 7775: Dynamic Optimization and its Applications to the Natural Sciences and Economics

ECONOM 8340: Game Theory
Game theory is the study of strategic behavior by agents who perceive themselves as 'large' relative to the market and who therefore consider the effect of their behavior on others. This course examines the rigorous theory of strategic interaction of rational agents. May be repeated for credit.
Credit Hours: 3
Prerequisites: ECONOM 4351 or equivalent; MATH 1320 or equivalent. Graded on A-F basis only

ECONOM 8370: Mathematics for Economics
The aim of this course is to cover essential mathematics used in economics. Topics include introductory linear algebra, multivariate calculus, comparative statics analysis, unconstrained optimization, and equality constrained optimization. May be repeated for credit.
Credit Hours: 3
Prerequisites: ECONOM 4351 or equivalent; MATH 1320 or equivalent. Graded on A-F basis only

ECONOM 8413: Research Workshop I
Required course for economics MA students. Combines instruction, student presentations, and seminar participation to introduce research methods and practice. A major research paper are required.
Credit Hours: 3
Prerequisites: ECONOM 8451, ECONOM 8453, and ECONOM 8473 or instructor's consent

ECONOM 8451: Microeconomic Theory
MA-level course in microeconomic theory. The course relies extensively on calculus to survey theories of: rational behavior in consumption, production, and pricing decisions of households and firms; partial equilibria in product and factor markets under competition, monopoly, oligopoly and monopolistic competition; and general equilibrium and welfare.
Credit Hours: 3

ECONOM 8453: Macroeconomic Theory
Basic models in macroeconomics will be covered with emphasis on assumptions and on how hypotheses can be tested. Course is an
ECONOM 8453: Introductory Survey of Macroeconomics
An introductory survey for students intending to develop ability for research in macroeconomics.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 4353 or equivalent; at least concurrent enrollment in ECONOM 8451. Instructor's consent required for non graduate level students.

**ECONOM 8472: Econometric Methods I**
Familiarizes students with fundamental techniques found and used in applied economic research. Topics include: ordinary least squares, generalized least square, instrumental variables, maximum likelihood estimation, and generalized methods of moments.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 7371 and MATH 7140 or equivalent, or instructor's consent.

**ECONOM 8473: Applied Econometrics**
Topics include: nonlinear least squares, numerical optimization, maximum likelihood and basic panel data and time series methods. Graded on A-F basis only.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 7371 and MATH 7140 or equivalent, or instructor's consent.

**ECONOM 9001: Topics in Economics**
Selected current topics in economics.

**Credit Hours:** 3

**ECONOM 9085: Problems in Economics**
Graduate students may select topics for study and investigation subject to approval by supervising faculty.

**Credit Hour:** 1-99

**ECONOM 9090: Research in Economics**
Thesis research for Ph.D. degree. Graded on a S/U basis only.

**Credit Hour:** 1-99

**ECONOM 9413: Research Workshop II**
Introduces doctoral students to practices of preparing scholarly economic research by moving through the process of selecting a topic, identifying relevant literature, and communicating results. Graded on A-F basis only.

**Credit Hour:** 1-3  
**Prerequisites:** ECONOM 9452, ECONOM 9454 and ECONOM 9474; PhD standing

**ECONOM 9420: Advanced Money and Banking**
The working and structure of institutional arrangements, welfare aspects of structural policies, operation of money and credit markets, and behavior of returns on assets.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 9452 or instructor's consent

**ECONOM 9431: Central Banking Policies**
Examines central banking procedures, policies and the role they play in maintaining economic stability. Special attention to connection of Federal Reserve System with money and capital markets.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 9452 or instructor's consent.

**ECONOM 9446: Advanced Empirical Methods**
Empirical and modeling techniques for evaluation of microeconomic policy questions.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 8451, ECONOM 8473  
**Recommended:** Concurrent enrollment in ECONOM 8473 or ECONOM 9473.

**ECONOM 9447: Topics in Microeconomic Policy Analysis**
(same as PUB_AF 9447). Applies the methods and techniques of microeconomics and to specific timely policy questions. Taught by applied-microeconomics faculty and focuses on current topics in labor economics, public economics, the economics of education, health economics, and other applied areas of microeconomics.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 8451, ECONOM 8473  
**Recommended:** Concurrent enrollment in ECONOM 8473 or ECONOM 9473.

**ECONOM 9451: Advanced Microeconomic Theory I**
The theory of rational behavior and partial equilibrium in markets. Topics include consumer behavior, theory of the firm, decisions making under uncertainty, perfect competition, monopoly and monopsony, and imperfect competition. Graded on A/F basis only.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 9451 or instructor's consent; PhD standing.

**ECONOM 9452: Advanced Microeconomic Theory II**
Survey of equilibrium theory and market failures in economics. Topics include the structure and modeling of games, and cooperative and non-cooperative equilibrium concepts.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 9451 or instructor's consent.

**ECONOM 9453: Advanced Macroeconomic Theory I**
Aggregate models of life-cycle microfoundations, of macroeconomics fluctuations and growth. Graded on A-F basis only.

**Credit Hours:** 3  
**Prerequisites:** departmental consent; PhD standing.

**ECONOM 9454: Advanced Macroeconomic Theory II**
Analyzes topics in income analysis, including capital theory and economic dynamics.

**Credit Hours:** 3  
**Prerequisites:** ECONOM 9453 or instructor's consent.
ECONOM 9455: Monopoly and Competition
A survey of the theoretical and empirical literature on the organization of industries. Includes study of monopolized markets, competitive markets, and strategic interaction among firms in imperfectly competitive markets. Both the rationale and practice of anti-trust policy are studied.
Credit Hours: 3
Prerequisites: ECONOM 9452 and ECONOM 9471 or instructor's consent

ECONOM 9457: Computational Economics
Covers numerical and computational methods to solve economic models at the research frontier. Emphasis is on practical applications to prepare students for independent research. Graded on A-F basis only.
Credit Hours: 3
Prerequisites: ECONOM 8451 and ECONOM 8453 and ECONOM 8472

ECONOM 9471: Advanced Game Theory
Presents core concepts in game theory and illustrates their uses with a range of applications.
Credit Hours: 3
Prerequisites: ECONOM 9452 or instructor's consent

ECONOM 9472: Econometric Theory I
Analysis of linear regression models from an advanced statistical perspective.
Credit Hours: 3
Prerequisites: Department consent required

ECONOM 9473: Econometric Theory II
Analysis of nonlinear regression models and other essential econometric tools not covered in ECONOM 9472 from an advanced statistical perspective.
Credit Hours: 3
Prerequisites: ECONOM 9472 or instructor's consent

ECONOM 9474: Advanced Topics in Econometrics I
Equips students with some essential tools for conducting publishable econometric research. Topics at the discretion of the instructor - typically time series analysis. Graded on A-F basis only.
Credit Hours: 3
Prerequisites: ECONOM 9473 or instructor's consent

ECONOM 9476: Advanced Topics in Econometrics II
Equips students with some essential tools for conducting publishable econometric research. Topics at the discretion of the instructor - typically microeconometrics.
Credit Hours: 3
Prerequisites: ECONOM 9473 or instructor's consent

ECONOM 9477: Advanced Topics in Econometrics III
Equips students with some essential tools for conducting publishable econometric research. Topics at the discretion of the instructor - typically the second semester of a two-semester time series sequence beginning with ECONOM 9474 or a two-semester microeconometrics sequence beginning with ECONOM 9476.
Credit Hours: 3
Prerequisites: ECONOM 9473 or instructor's consent